

KOREMAN, I.M.; TUMANOV, A.A.; SOROKINA, V.M.

Composition and solubility of cerium oxinates. Izv.vys.ucheb.zav.;
khim.i khim.tekh. 3 no.4:580 '60. (MIRA 13:9)

1. Nauchno-issledovatel'skiy institut khimii pri Gor'kovskom gosudar-
stvennom universitete im. N.I.Lobachevskogo, kafedra analiticheskoy
khimii.

(Cerium compounds)

(Quinolinol)

"APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757420010-4

APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757420010-4"

TUMANOV, A. A.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

M. S. Chupakhin. The prospects for mass-spectroscopic analysis of high-purity solids by isotopic dilution and vacuum spark methods.

A. A. Tumanov. Biological determination of microquantities of Zn, Cu, Cd, Ag and sulfides.

(Zhur. ANAL. khim, 19 No. 6, 1964 p. 777-9)

TUMANOV, A. A.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

A. A. Tumanov, A. N. Sidorenko, and Ya. I. Korenman. Determination of iodine (up to 10^{-5} micrograms in 5 ml) in Si or Ge semiconductor thin films by means of a catalytic method.

(Zhur. Anal. khim 19 No. 6, 1964 p. 777-79)

TUMANOV, A. A.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

A. A. Tumanov, N. M. Shakhverdi, and Z. I. Glazunova. Spectrophotometric determination of microquantities of Se.

(Zhur ANAL Khim, 19 No. 6, 1964 p. 777-79)

TUMANOV, A. A.

The Second All-Union Conference on the Preparation and Analysis of High-Purity Elements, held on 24-28 December 1963 at Gorky State University im. N. I. Lobachevskiy, was sponsored by the Institute of Chemistry of the Gorky State University, the Physicochemical and Technological Department for Inorganic Materials of the Academy of Sciences USSR, and the Gorky Section of the All-Union Chemical Society im. D. I. Mendeleyev. The opening address was made by Academician N. M. Zhavoronkov. Some 90 papers were presented, among them the following:

A. A. Popel' and Z. A. Saprykovo. Quantitative determination of paramagnetic ions in solution by NMR methods.

I. Ye. Zimakov. Determination of microimpurities (10^{-7} to $10^{-8}\%$) by repeated radioactive dilution.

A. A. Tumanov and V. S. Yefimych. Determination of micro-concentrations with salicylan-2-aminophenol.

(ZhVR ANAL Khim, 19 No. 6, 1964, p. 777-79)

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CIA-RDP86-00513R001757420010-4

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CIA-RDP86-00513R001757420010-4"

TOPIC TAGS: spectrophotometry, trace analysis, impurity content, ultraviolet

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APPROVED FOR RELEASE: 03/14/2001

CIA-RDP86-00513R001757420010-4"

TUMANOV, A. A., and KORENMAN, I. M.

"Coprecipitation of Cadmium With Antipyrine Tetrabromomercuriate," by I. M. Korenman and A. A. Tumanov, Scientific Research Institute of Chemistry at Gor'kiy State University, Zhurnal Analiticheskoy Khimii, Vol 11, No 4, Jul/Aug 56, pp 430-436

In the work described, it was established that cadmium is coprecipitated with mercuric ions when the latter react with antipyrine bromide, forming insoluble antipyrine tetrabromomercuriate. It was furthermore shown that precipitation of mercury in the form of antipyrine tetrabromomercuriate can be used for the separation of small quantities of cadmium present in zinc and copper salts.

Sum 1239

TUMANOV, A.A.; MALKINA, L.A.

Enzymatic catalytic reactions for analytical purpose.

Trudy po khim.i khim.tekh. no.1:118-123 '64.

(MIRA 18:12)

1. Submitted July 10, 1963.

TUMANOV, A.D.

Mechanization of labor consuming processes. Tsement 29
no.4:18 J1-Ag '63. (MIRA 16:11)

1. Chimkentskiy tsementnyy zavod.

TUMANOV, A.D.; STEPANOV, V.M.

Mastering new capacities. Tsement 28 no.5:16-17 S-O '62.
(MIRA 15:11)

1. Chirkentskiy tsementnyy zavod.
(Chirkent--Cement plants)

TUMANOV, A.D., inzh.

Cement exceeding the plan. TSement 31 no.5:19 S-O '65.

(MIRA 18:10)

1. Chimbentskiy tsementnyy zavod.

TUMANOV, A.D., inzh.

Advantages of bearings made of wood-fiber plastics. Tsement 30 no.5:
20 3-0 '64. (MIRA 17:12)

1. Chirkentskiy tsementnyy zavod.

GAAB, M.T.; VARNAVSKIY, M.G.; TUMANOV, A.F.; SINYAKOV, V.N.; SONOMATOV, N.A.

Measures for maintaining pressure in petroleum strata. [Suggested by
Gaab, M.T.; Varnavskiy, M.G.; Tumanov, A.F.; Sinyakov, V.N.,
Sonomatov, N.A.] Prom.energ. 12 no.10:22 0 '57. (MIRA 10:10)
(Oil field flooding)

GOREV, N.A.; TJMANOV, A.G.

Oil and gas of the Ukraine. Neft. khoz. 42 no.9/10;
64-68 S-O '64. (MIRA 17:12)

TUMANOV, A.I., inzh.; GUSTOV, V.F., kand. tekhn. nauk

Heat exchange in the regenerators of air separation units
(studied on an electric model). Trudy VNIIMASH no.10:
69-73 '65. (MIRA 18:9)

CHERNYSHEVA, Ye.A., inzh.; TUMANOV, A.I.

Investigating the work of regenerators packed with random
crushed stone. Trudy VNIIMASH no.9:36-55 '65.

(MDRA 18:6)

TUMANOV, A.I., inzh.; GUSTOV, V.F., kand. tekhn. nauk

Electric model of a regenerator. Trudy VNIIMASH no.9:
151-162 '65.

(MIRA 18:6)

KOSYAKOV, Pavel Nikolayevich, prof.; TUMANOV, A.K., red.

[Immunology of isoantigens and isoantibodies] Immunolo-
giia izoantigenov i izoantitel. Moskva, Meditsina, 1965.
311 p. (MIRA 18:6)

TUMANOV, A. I.; GUSTOV, V. F.

"Investigation of the heat exchange in the regenerators of an air-fractionating plant by means of the heat-electric analogy."

report submitted for 2nd All-Union Conf on Heat & Mass Transfer, Minsk, 4-12 May 1964.

All-Union Sci Res Inst of Oxygen Engineering.

TUMANOV, A.K.

Photoelectric spectral analysis of slags produced in the manufacture of ferrochrome and ferrotungsten. Zav.lab. 26 no.12:1366-1368 '60. (MIRA 13:12)

1. Chelyabinskiy zavod ferrosplavov.
(Iron alloys--Spectra)

ZATSEPINA, E.M.; TUMANOV, A.K.

Exchange of experience. Zav.lab. 28 no.11:1333 '62.
(MIRA 15:11)

1. Chelyabinskiy nauchno-issledovatel'skiy institut metallurgii.
(Metals--Spectra)

TUMANOV, A.K.; CHABANENKO, N.I.

Device for analysis of alloys by the method of thermoelectromotive
force. Zav.lab. 29 no.5:627-628 '63. (MIRA 16:5)

1. Chelyabinskiy elektrometallurgicheskiy kombinat.
(Alloys--Analysis) (Electromotive force)

TUMANOV, A.K.

Plotting calibration curves during the reabsorption of lines. Zav.
lab. 29 no.12:1445-1447 '63. (MIRA 17:1)

1. Chelyabinskiy elektrometallurgicheskiy kombinat.

TOPALOV, Leonid Ivanovich; SHAYEVICH, Aron Borisovich; SHUBINA, Sof'ya
Borisovna; ~~TIMANOV, A.I.,~~ retsenzent; CHAPAYKINA, F.K., red.
izd-va; MAL'KOVA, N.T., tekhn. red.

[Spectrum analysis of ferroalloys] Spektral'nyi analiz ferrospla-
vov. Sverdlovsk, Metallurgizdat, 1962. 288 p. (MIRA 16:1)
(Iron alloys--Spectra)

VASIL'YEV, D.M.; TUMANOV, A.K.

Precision quartz dilatometer. Zav.lab. 25 no.3:374-375 '59.
(MIRA 12:4)

1. Leningradskiy politekhnicheskij institut.
(Dilatometer)

S/032/60/026/010/013/035
B016/B054

AUTHOR: Tumanov, A. K.

TITLE: News in Brief

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 10, p. 1129

TEXT: The author reports on his electrical method of electrode polishing. The accurate shape of electrodes is of special importance to spectrum analyses¹ by photoelectrical methods. The apparatus (Fig. p. 1129) consists of a rectifier, a porcelain or plastic vessel, an immobile lead electrode, and a holder for the electrodes to be polished. Any type of rectifier (12 - 24 v, 2 - 7 a) including the Cuprox rectifier BAK-13 28 (VAK-13)² of the microphotometer MΦ-2 (MF-2) is suited for the purpose. The composition of the electrolyte and the working method are varied depending on the electrode material (see Table p. 1129). The stable electrodes are given the required shape on a turning lathe or by hand. The electrode is only electropolished after each exposure. It is inserted as an anode, its end being dipped into the electrolyte. When the traces

Card 1/2

News in Brief

S/032/60/026/010/013/035
B016/B054

of the spark have disappeared, the polishing is interrupted, and the electrode is rinsed with running water. The traces disappear within a few seconds, and the electrode surface becomes mirrorlike. 400 to 500 electrodes can be polished in 500 ml of electrolyte. The shape of the electrodes, ground as a conical frustum, does not change even after 150 - 300 analyses. Electrodes ground as hemispheres can be used for an unlimited period of time. Electropolishing speeds up the preparation of electrodes, reduces considerably the consumption of spectroscopically pure materials, and increases the stability of discharge as well as the reproducibility of analytical results. There are 1 figure and 1 table.

ASSOCIATION: Chelyabinskiy zavod ferrosplavov (Chelyabinsk Works of Ferroalloys)

Card 2/2

TUMANOV, A.K.

Medical jurisprudence in the German Democratic Republic. Sud.-med.
ekspert. 3 no.4:31-34 O-D '60. (MIRA 13:11)

1. TSentral'naya sudebnomeditinskaya laboratoriya Glavnogo voyenno-
meditsinskogo upravleniya Ministerstva obrony SSSR (nach. - chlen-
korrespondent AMN SSSR prof. M.I.Avdeyev).
(GERMANY, EAST--MEDICAL JURISPRUDENCE)

TUMANOV, Aleksey Konstantinovich; BEREZOVSKAYA, N.G., red.; LYAMINA, Ye.Ya., red.; TARASOVA, N.M., tekhn. red.

[Forensic medical examination of material evidence] Sudebno-meditsinskoe issledovanie veshchestvennykh dokazatel'stv. Moskva, Gos.izd-vo iurid.lit-ry, 1961. 579 p. (MIRA 15:2)
(MEDICAL JURISPRUDENCE)

8(2)

SOV/32-25-3-51/62

AUTHORS: Vasil'yev, D. M., Tumanov, A. K.

TITLE: A Precision Quartz Dilatometer (Pretsizionnyy kvartsevyy dilatometr)

PERIODICAL: Zavodskaya Laboratoriya, 1959, Vol 25, Nr 3, pp 374-375 (USSR)

ABSTRACT: The article is a description of a dilatometer using the pattern of a "roller" with an expansion coefficient of appr. $5 \cdot 10^4$. The apparatus (Fig 1) consists of a base plate with two supports for the two working rods which are connected through quartz extension pieces and which hold the sample. The samples with the quartz extension pieces are contained in two quartz tubes attached to a clamping device. A third quartz tube contains a thermoelement. During the experiment the three quartz tubes are in a stove with a maximum temperature of 1200° . The sample deformation is measured with the help of a mirror mounted on an axis. The latter is attached to a clamp (Fig 2). With a sample length of 10 mm a relative length change can be determined by means of the apparatus described with an accuracy of $2 \cdot 10^{-6}$; the accuracy of determining an absolute extension is $2 \cdot 10^{-5}$ mm. There are 2 figures.

Card 1/2

A Precision Quartz Dilatometer

SOV/32-25-3-51/62

ASSOCIATION: Leningradskiy politekhnicheskii institut
(Leningrad Polytechnical Institute)

Card 2/2

BRONNIKOVA, Mariya Aleksandrovna; GARKAVI, Anna Samoylovna;
TUMANOV, A.K., red.; BEL'CHIKOVA, Yu.S., tekhn.red.

[Methodology and technique of forensic medicine
expertise on material evidence] Metodika i tekhnika su-
debnomeditsinskoi ekspertizy veshchestvennykh dokaza-
tel'stv. Moskva, Medgiz, 1963. 277 p. (MIRA 17:2)



8/042/60/026/012/010/036
B020/B056

AUTHOR: Tumanov, A. K.

TITLE: The Photoelectric Spectrum Analysis of Slags From the Production of Ferrochromium and Ferrotungsten

PERIODICAL: Zavodskaya laboratoriya, 1960, Vol. 26, No. 12, pp. 1366-1368

TEXT: The author developed a procedure for the photoelectric spectroscopic determination of chromium oxide in ferrochromium slags and of tungsten trioxide in ferrotungsten slags. A one-channel device, which had been constructed in the author's factory on the basis of the optics of the $СЛ-3$ (SL-3) styloscope was used (Fig. 1). The analytical bands were recorded by means of a $ФЭУ-19М$ (FPU-19M) photomultiplier in conjunction with a single-cascade tube electrometer. The radiotechnical part of the device (Fig. 2) consists of a single-cascade tube electrometer connected in bridge circuit with tube $1Э1П$ (1E1P). The input resistance of the electrometer exceeds 10^{12} ohms. The electrometer is fed by accumulators. The non-decomposed light incident upon a photocell of the type $С4Б-3$

Card 1/2

The Photoelectric Spectrum Analysis of Slags S/032/60/026/012/010/036
From the Production of Ferrochromium and B020/B056
Ferrotungsten

(STsV-5), and for the light of the analytical bands, a photoelectronic multiplier of the type FEU-19M was used. The device is stable and operates faultlessly. The instrumental error of the device was less than 1%. As a light source, an a.c. arc was used. The analysis was carried out at 5.5 a by means of truncated cone electrodes made from carbon, with a dilution of 30 mm Hg in the arc zone, an exposure of 30 seconds and with an entrance slit of 0.03 mm. For W the analytical bands 4008.75 Å and for chromium the green triplet 5208.44, 5206.04, and 5204.52 Å was used. When carrying out the analysis one determination is sufficient, because, during the exposure, a large quantity of samples is burned, which warrants good concentration of the band intensity and of the non-decomposed light. The composition of the analyzed slags is given (Table). The error of individual determination of chromium oxide in the ferrochromium slags is $\pm 3.2\%$, and that of the tungsten trioxide in the ferrotungsten slags is $\pm 3.9\%$. The determination of one cell took 2 - 3 minutes. There are 2 figures, 1 table, and 2 Soviet references.

ASSOCIATION: Chelyabinskiy zavod ferrosplavov
(Chelyabinsk Plant for Ferro Alloys)

Card 2/2

TUMANOV, A.K.

Magnetic method of determining chromium in ferrochromium.
Zav.lab. 27 no.8:998-999 '61. (MIRA 14:7)

1. Chelyabinskiy elektrometallurgicheskiy kombinat.
(Chromium--Analysis)
(Iron-chromium alloys--Magnetic properties)

SOV/137-58-11-23151

Translation from: Referativnyy zhurnal. Metallurgiya, 1958, Nr 11, p 188 (USSR)

AUTHORS: Golubev, A. I., Tumanov, A. N., Filippova, A. P.

TITLE: Behavior of the Structural Components of Aluminum Alloys During the Process of Chemical and Anodic Staining in Sulfuric Acid (Povedeniye strukturnykh sostavlyayushchikh alyuminiyevykh splavov v protsesse khimicheskogo oksidirovaniya i anodirovaniya v sernoy kislote)

PERIODICAL: V sb.: Korroziya i zashchita metallov. Moscow, Oborongiz, 1957, pp 328-341

ABSTRACT: The behavior of various structural components of cast Al alloys during anodic (A) and chemical (C) staining was investigated. A was continued for 40 min in H_2SO_4 of 200 g/liter concentration at $18^\circ C$ and a cathode cd of $0.6-1 \text{ amp/dm}^2$. It was found that alloys cast under pressure are anodized at a higher voltage than chill-cast alloys. C was conducted in a solution containing (in g/liter): CrO_3 3 and Na_2SiF_6 3 at $18-20^\circ$ during 10 min. Before the C and A a part of the surface of the alloy was etched in a 0.5% HF solution.

Card 1/2 Successive metallographic analysis of the specimens after etching,

SOV/137-58-11-23151

Behavior of the Structural Components of Aluminum Alloys (cont.)

C, and A made it possible to establish that in case of a greater Cu content (4.15%) the alloy consists of a solid solution and the chemical compound CuAl_2 . During A a film forms only on the surface of the solid solution. The chemical compound is etched away. Upon investigation of alloys containing an appreciable amount of Si it was established that the anodic film is then also formed on the surface of the solid solution only. The surface of Si crystals remains unchanged. Upon either chemical or electrochemical treatment of alloys no discernible oxide film could be discovered on the surface of the Si crystals. Addition of up to 10.46 Zn to Si alloys shows no appreciable effect on the behavior of the alloy during A and C. Alloys containing Mg have, along with the solid solution, an Mg_2Si component which is completely dissolved during the A of the alloy.

Yu. P.

Card 2/2

1ST AND 2ND ORDERS																										3RD AND 4TH ORDERS																									
PROCESSES AND PROPERTIES INDEX																										MATERIAL INDEX																									
<p><i>Corrosion-Testing of Oxide-Coated Aluminium Alloys. A. N. Tumanov (Zavod. Lab. (Works' Lab.), 1937, 6, 1237-1240; (Kem. Zentr., 1938, 108, (1), 3631).—[In Russian.] The following method is suggested which is, however, not applicable to the testing of coatings produced chemically by a solution of sodium carbonate, chromate, and hydroxide. A drop of a solution consisting of equal parts of a 6% potassium dichromate solution and hydrochloric acid (sp. gr. 1.19) is placed on the material to be tested. Incomplete oxidation of the aluminium causes a green colour, owing to reduction of the dichromate by the development of hydrogen. In coatings produced by anodic oxidation the solution applied should not cause a green colour during the first 10 minutes, and in those produced by either chromic or sulphuric acid not during the first 8 minutes. D. R. N.</i></p>																																																			
<p>AND SEE A DETAILING LITERATURE CLASSIFICATION</p>																																																			

TUMANOV, A. N.; FILIPPOVA, A. P.; GOLUBEV, A. I.;

"Behavior of Structural Components of Aluminum Alloys in the Process of Chemical Oxidation and Anodizing in Sulphuric Acid," Korroziya i azshchita metallov (Corrosion and protection of Metals), Moscow, Oborongiz, 1957. 366 p.

PURPOSE: This book is intended for engineering, technical, and scientific personnel, at industrial plants, research institutes, and design offices working in the field of corrosion-protection of stainless steel, high-strength structural steel, and light alloys.

1ST AND 2ND DEGREES										3RD AND 4TH DEGREES									
PROCESSES AND PROPERTIES INDEX																			
BC										B-I-C									
<p>Testing of corrosivity of oxidized aluminum alloys. A. N. TUMANOV. (Zavod. Lab., 1937, 8, 1237—1240).—A drop of 8% $K_2Cr_2O_7$ in 50% HCl is placed on the oxidized Al surface, and the length of time elapsing before the drop becomes green is noted. Anodic passivation in a H_2SO_4 bath is satisfactory when this time is < 10 min., or < 8 min. in an 8% CrO_3 bath. R. T.</p>																			
ASPH-SLA METALLURGICAL LITERATURE CLASSIFICATION																			
MATERIALS INDEX										E-2									
TANONIS *A										S21000 M17 QNV GSE									
MAY 10 1961										MAY 10 1961									

Methods for testing the resistance to corrosion of oxidized aluminum alloys. A. N. Lukashov, *Doklady Akad. Nauk SSSR*, 1957, No. 12, 237-240 (1957). To test the protective properties of Al₂O₃ film of Al or duralumin, a drop of the mixt. of equal vol. of 10% K₂Cr₂O₇ and conc. HCl is placed on the surface. In the presence of deep pores and unoxidized spots, a green color will immediately appear. For further examn. the spot is removed with filter paper and the etched surface is washed with hot water. Chas. Blanc.

1ST AND 2ND CROSS																										3RD AND 4TH CROSS																									
COMMON ELEMENT																										COMMON VARIABLE																									
<p>CA</p> <p>PROCESSES AND PROPERTIES INDEX</p> <p>Anodic polarization of aluminum and alloys in sulfuric acid. V. O. Krenig and A. N. Tumanov. <i>Nauka Tekhnol. i Avionostroi, Perioe Gilyano Upravlenie NKAP, Kabinet Obmena Uplyom po Novoi Tekhnol. i Organizatsii Prom. i Obshchestva</i> 1939, No. 4, 40-55; <i>Khim. Referat. Zhur.</i> 1940, No. 2, 80. Some investigators report that the addn. of glycerol to the H_2SO_4 bath for anodic oxidation decreases the soly. of Al, and facilitates the formation of a more plastic film. The authors' expts. with H_2SO_4 solns. (200 g./l.), at c. d. of 1 amp./sq. dm. and at 20°, 25° and 30° for 30 min. indicate that 1, 5 and 10% addns. of glycerol have no appreciable effect either on the quality of the oxide film or on the soly. of Al. Replacing pure H_2SO_4 soln. with tech. H_2SO_4 does not change the quality of the oxide film. The anodic oxidation of Al and its alloys in H_2SO_4 is followed by treatment of the films with $K_2Cr_2O_7$ solns.; this increases their protective properties considerably. $K_2Cr_2O_7$ and $Na_2Cr_2O_7$ are almost identical in effect; $(NH_4)_2Cr_2O_7$ produces slightly better results.</p> <p>W. R. Henn</p>																										4																									
ASB-51A METALLURGICAL LITERATURE CLASSIFICATION																																																			
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Net. Abs.

Y. 9

Protection

*Anodic Oxidation of Aluminum and Its Alloys in Sulphuric Acid. A. G. Krong and A. N. Turyazy (Nauka Tekhn. i Aeronav. Prikl. Fizika i Khim. i Prikl. Tekhn. N. S. S. R., Kaluzhskaya Oblast', Odesk. gos. univ., 1940, 24, 56, 1, 22). *Published in English in* *Physicochem. USSR*, 1939, (4), 10-55; *Khim. Refekt. Zh.*, 1940, 24, 56, 1, 22. *Published in Russian in* *Some investigations report that the addition of glycerol to the H₂SO₄ bath for anodic oxidation decreases the solubility of aluminum, and facilitates the formation of a more plastic film. Krong and Turyazy, experimenting with H₂SO₄ solutions (2200 gram liter), at a d.c. of 15 amperes and at 20, 25, and 30 °C. for 30 minutes, indicate that 1.5 g. of glycerol per liter of H₂SO₄ has no appreciable effect either on the quality of the oxidized film or on the solubility of aluminum. Replacing pure H₂SO₄ solutions with a commercial H₂SO₄ does not change the quality of the oxidation. The anodic oxidation of aluminum and its alloys in H₂SO₄ is followed in treated solutions of the films with K₂Cr₂O₇ solutions; this increases their protective properties. Similar results for K₂Cr₂O₇ and Na₂Cr₂O₇ are almost identical. In 0.1% NH₄Cl, CrCl₃ products slightly better results.*

KOPYTOV, V.F., otv. red.; DAVYDOV, G.M., kand. ekon. nauk, red.;
KLIMENKO, V.Ya., kand.geol.-miner. nauk, red.; GOREV, N.A.,
inzh., red.; GORODETSKIY, V.I., inzh., red.; LYASOVSKIY,
N.F., inzh., red.; TUMANOV, A.P., inzh., red.; STUKALOV,
K.V., inzh., red.; TITOVA, N.M., red. izd-va; CHUMACHENKO,
V.S., red.izd-va; LIBERMAN, T.R., tekhn. red.

[Development of the Ukrainian gas industry] Razvitie gazovoi
promyshlennosti Ukrainy. Kiev, Izd-vo Akad. nauk USSR, 1962.
274 p. (MIRA 15:11)

1. Akademiya nauk URSS, Kiev. Rada po vyvchenniu produktiv-
nykh syl URSS. 2. Chlen-korrespondent Akademii nauk Ukr.SSR i
Institut ispol'zovaniya gaza Akademii nauk Ukr. SSR (for
Kopytov). 3. Sovet po izucheniyu proizvoditel'nykh sil Ukr.
SSR (for Davydov). 4. Institut geologicheskikh nauk Akademii
nauk SSR (for Klimenko). 5. Ukrainskoye otdeleniye Gosudar-
stvennogo instituta po proyektirovaniyu zavodov iskusstven-
nogo zhidkogo topliva i gaza. (for Gorodetskiy). 6. Gosudar-
stvennyy planovyy komitet Soveta Ministrov SSSR (for Gorev,
Lyasovskiy).

(Ukraine--Gas, Natural)

TUMANOV, A.T., glav. red.; VYATKIN, A.Ye., red.; GARBAR, M.I., kand. tekhn. nauk, red.; ZAYMOVSKIY, A.S., red.; KARGIN, V.A., red.; KISHKIN, S.T., red.; KISHKINA-RATNER, S.I., doktor tekhn. nauk, red.; PANSHEV, B.I., kand. tekhn. nauk, red.; ROGOVIN, Z.A., doktor khoz. nauk, red.; SAZHIN, N.P., red.; SKLYAROV, N.M., doktor tekhn. nauk, red.; FRIDLYANDER, I.N., doktor tekhn. nauk, red.; SHUBNIKOV, A.V., red.; SHCHERBINA, V.V., doktor geol.-miner. nauk, red.; SHRAYBER, D.S., kadn. tekhn. nauk, red.; GENEL', S.V., kand. tekhn. nauk, red.; NOVIKOV, A.S., doktor khoz. nauk, red.; KITAYGORODSKIY, I.I., doktor tekhn. nauk, red.; ZHEREBKOV, S.K., kand. tekhn. nauk, red.; BOGATYREV, P.M., kand. tekhn. nauk, red.; BUROV, S.V., kand. tekhn. nauk, red.; POTAK, Ya.M., doktor tekhn. nauk, red.; KUKIN, G.N., doktor tekhn. nauk, red.; KOVALEV, A.I., kand. tekhn. nauk, red.; ZENTSEL'SKAYA, Ch.A., tekhn. red.

[Building materials; an encyclopedia of modern technology]
Konstruktsionnye materialy; entsiklopediia sovremennoi tekhniki. Glav. red. Tumanov, A.A. Moskva, Sovetskaia entsiklopediia. Vol.1. Abliatsiia - Korrozii. 1963. 416 p.
(MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Kishkin).

TUMANOV, A.T., glav. red.; VYATKIN, A.Ye., red.; GARBAR, M.I., red.; ZAYMOVSKIY, A.S., red.; KARGIN, V.A., red.; KISHKIN, S.T., red.; KISHKINA-KATHER, S.I., doktor tekhn. nauk, red.; PANSIN, B.I., kand. tekhn. nauk, red.; ROGOVIN, Z.A., red.; SAZHIN, N.P., red.; SKLYAROV, N.M., doktor tekhn. nauk, red.; FRIDLYANDER, I.N., doktor tekhn. nauk, red.; SHUMNIKOV, A.V., red.; SHCHERBINA, V.V., doktor geol.-miner. nauk, red.; SHRAYBER, D.S., kand. tekhn. nauk, red.; GENEL', S.V., kand. tekhn. nauk, red.; VINOGRADOV, G.V., doktor khoz. nauk, red.; NOVIKOV, A.S., doktor khoz. nauk, red.; KITAYGORODSKIY, I.I., doktor tekhn. nauk, red.; ZHEREBKOV, S.K., kand. tekhn. nauk, red.; BOGATYREV, P.M., kand. tekhn. nauk, red.; SANDOMIRSKIY, D.M., D.M., kand. tekhn. nauk, red.; BUROV, S.V., kand. tekhn. nauk, red.; FOTAK, Ya.M., doktor tekhn. nauk, red.; KUKIN, G.N., doktor tekhn. nauk, red.; KOVALEV, A.I., kand. tekhn. nauk, red.; YAMANOV, S.A., kand. tekhn. nauk, red.; SHEFTEL', I.A., kand. khoz. nauk, st. nauchn. red.; BABERTSYAN, A.S., inzh., nauchn. red.; BRAZHNIKOVA, Z.I., nauchn. red.; KALININA, Ye.M., mlad. red.; SOKOLOVA, V.G., red.-bibliograf; ZENTSSEL'SKAYA, Ch.A., tekhn. red.

[Building materials; an encyclopedia of modern technology] Konstruktsionnye materialy; entsiklopediya sovremennoi tekhniki. Glav. red. A.T.Tumanov. Moskva, Sovetskaya entsiklopediya. Vol.1. Abliatsiya - korroziya. 1963. 416 p. (MIRA 17:3)

1. Chlen-korrespondent AN SSSR (for Kishkin).

TUMANOV, A.T., zasluzhennyy deyatel' nauki i tekhniki RSFSR;
DAVIDENKOV, V.V., akademik; SERENSEN, S.V., akademik;
KURDYUMOV, G.V., akademik; BOCHVAR, A.A., akademik;
KISHKIN, S.T.; ZAYMOVSKIY, A.S.; SHCHAPCOV, N.P., prof.;
KUDRYAVTSEV, I.V., prof.; VITMAN, F.F., prof.; KISHKINA,
S.I., prof.

Iakov Borisovich Fridman; on the fiftieth anniversary of his
birth. Zav.lab. 27 no.7:919-920 '61. (MIRA 14:7)

1. Akademiya nauk USSR (for Davidenkov, Serensen). 2. Chleny-
korrespondenty Akademii nauk SSSR (for Kishkin, Zaymovskiy).
(Fridman, Iakov Borisovich, 1911-)

AL'TMAN, Morits Borisovich; LEBEDEV, Aleksandr Aleksandrovich;
CHUKHROV, Matvey Vasil'yevich; TUMANOV, A.T., zasl. deyatel'
nauki i tekhniki RSFSR, doktor tekhn. nauk, red.; KAMAYEVA,
O.M., red. izd-va; VAYNSHTEYN, Ye.B., tekhn. red.

[Melting and founding nonferrous metal alloys; metallurgical
principles] Plavka i lit'e splavov tsvetnykh metallov; metal-
lurgicheskie osnovy. Pod red. A.T. Tumanova. Moskva, Metal-
lurgizdat, 1963. 523 p. (MIRA 16:8)

(Nonferrous metals--Founding)

BRISH, V.N.; DANILYA K, N.I.; TUMANOV, B.A.

Combined porudction of starch and and alcohol. Spirt.pron. 26 no.8:
29-32 '60. (MIRA 13:11)

(Starch) (Alcohol)

BRISH, V.N.; DANILYAK, N.I.; TUMANOV, B.A.

Combined production of starch and alcohol. Sakh.prom.35 no.3:65-67
Mr '61. (MIRA 14:3)

1. L'vovskiy sovmarkhoz. (Starch) (Alcohol)

TUMANOV, Boris Vladimirovich; DOLIN, P.A., red.; VORONIN, K.P.,
tekhn.red.

[Safety information for electric welders] Pamiatka po tekhnike
bezopasnosti dlia elektrosvarshchikov. Moskva, Gos.energ.izd-vo,
1960. 19 p. (MIRA 14:6)
(Electric welding—Safety measures)

TUMANOV, B.V., inzh.

Electrical tools and problems of safety. Prom.energ. 19
no. 4:16-18 Ap '64. (MIRA 17:5)

SEVAST'YANOV, Mitrofan Ivanovich; VASIL'YEV, A.A. , red.; DOLGOV, A.N.,
red.; YEZHKOVA, V.V., red.; SMIRNOV, A.D., red.; USTINOV, P.I.,
red.; TUMANOV, B.V., red.; VORONIN, K.P., tekhn.red.

[Safety engineering in performing rigging operations in the
installation of electric systems] Tekhnika bezopasnosti pri
proizvodstve takelazhnykh rabot na montazhe energeticheskikh
ustanovok. Moskva, Gos.energ.izd-vo, 1960. 55 p. (Biblioteka
elektromontazha, no.34) (MIRA 1:4)
(Electric engineering--Safety measures)

TUMANOV, E. A.

"Quantum electrodynamics in a configurational representation V Two-photon annihilation of positronium." (p. 385)

SO: ZHURNAL EKSPERIMENTALNOI I TEORETICHESKOI FIZIKI 1953 Vol. 25 No. 4 (10)

TUMANOV, G.

USSR / Cultivated Plants. Plants for Technical Use.
Oil Plants. Sugar Plants.

M

Abs Jour : Ref Zhur - Biol., No 8, 1958, No 34739

Authors : Tumanov, G.; Antokhina, V.

Inst : Not given

Title : Concerning the Incorrect Quality Rating of Variety 2421

Orig Pub : Khlopkovodstvo, 1957, No 6, 38-40

Abstract : No abstract given.

Card 1/1

Tumanov, G

USSR / Cultivated Plants. Technical. Oleaginous. Sugar-Bearing L-5

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22776

Author : Tumanov, G.

Inst : Not given

Title : Proper Distribution of Cotton Plant Varieties in Azerbaydzhan.

Orig Pub : Khlopkovodstvo, 1955, No 5, 27-30

Abstract : Unreasonably large areas in Azerbaydzhan SSR are occupied by the cotton plant variety 1298, and the development of variety 108-F is delayed. The data of the state variety tests, and comparisons of production within the limits of individual rayons and kolkhozes prove the superiority of variety 108-F over variety 1298 in the ma-

Card : 1/2

USSR / Cultivated Plants. Technical. Oleaginous.
Sugar-Bearing.

L-5

Abs Jour : Ref Zhur - Biol., No 6, March 1957, No 22776

Abstract : majority of Azerbaydzhan cotton-producing rayons. The reference to the fact that on the whole variety 1298 yielded a larger crop than 108-F in the Republic in 1954 proves nothing since it is based on comparison of unlike data. It is also incorrect to delay production of variety 108-F for the reason that new varieties were developed by the scientific-experimental cotton institute of Azerbaydzhan (2018/2, 2421 and 2173). According to data of state variety tests, these varieties yield to variety 108-F in many Azerbaydzhan rayons. In the author's opinion, variety 108-F should be correctly dispersed through rayons, and a productive check-up on the new varieties should be widely practiced by comparison with varieties assigned to rayons.

Card : 2/2

TUMANOV, G., gornyy inzh.; KHAZARYAN, L., gornyy inzh.

New equipment and technological processes in blasthole drilling at
the lime quarries of the Ararat Cement and Slate Works. Prom.Arm.
6 no.7:33-38 J1 '63. (MIRA 16:9)

1. Armyanskoye spetsial'noye upravleniye po proizvodstvu burovzryv-
nykh rabot.

TUMANOV, G., inzh.; KHAZARYAN, L., inzh.

Using blasting techniques in recovering building tuffs. From.
Arm. 6 no.1:50-53 Ja '63. (MIRA 16:4)

1. Armapetsupravleniye po proizvodstvu burovzryvnykh rabot.
(Armenia—Volcanic ash, tuff, etc.)

TUMANOV, G.A.; FISHMAN, M.P.

Start and feed of the ignition system of the ZIL-120 motor of
the APFR hoist and flush unit from an a.c. network. Nefteprom.
delo no.6:30-31 '63. (MIRA 16:10)

1. Neftepromyslovoye upravleniye "Artemneft".
(Artem Island region—Oil well drilling, Submarine—Electric
(Equipment)

BARMIN, V.V.; BYSHEVA, G.K.; TUMANOV, G.K.; AGAPKIN, I.I.;
VESELOV, M.A.; ANDREYEV, V.M.; GOL'DIN, L.L.; LUZIN, V.N.;
RADKEVICH, I.A.; SOKOLOVSKIY, V.V.; STADNIKOV, A.G.

Study and correction of the horizontal component of the mag-
netic field in a proton synchrotron on low densities. Prib.
i tekhn. eksp. 7 no.4:229-229 J1-Ag '62. (MIRA 16:4)

1. Institut teoreticheskoy i eksperimental'noy fiziki Gosu-
darstvennogo komiteta po ispol'zovaniyu atomnoy energii SSSR.
(Magnetic measurements) (Synchrotron)

h0761

S/120/62/000/004/042/047
E140/E420

24.6739

AUTHORS: Barmin, V.V., Bysheva, G.K., Tumanov, G.K.,
Agapkin, I.I., Andreyev, V.N., Veselov, M.A.,
Gol'din, L.L., Luzin, V.N., Radkevich, I.A.,
Sokolovskiy, V.V., Stadnikov, A.G.

TITLE: Investigation and correction of the horizontal
component of the low-induction magnetic field of the
proton synchrotron

PERIODICAL: Priory i tekhnika eksperimenta, no.4, 1962, 223-229

TEXT: Permalloy probes modulated at 10 kcs were used to measure
the position of the neutral plane of the magnetic field. It was
found that the distortion of the neutral plane in the residual
field was determined mainly by the neutral pole. This distortion
decreased as the excitation of the C-blocks was increased.
Due to hysteresis effects, the measurements had to be carried out
under operating conditions. A description of the probe and its
associated circuits is given. The measurements show that 67 of
the magnets have a deviation of the neutral plane in the range
+ 0.5 mm, 16 magnets have 0.5 to 0.6 mm, 3 magnets 0.6 to 0.7 mm
Card 1/2

Investigation and correction ...

S/120/62/000/004/042/047
E140/E420

and 12 magnets ≥ 0.7 mm. The average error of measurement is ± 0.17 mm. The method of correcting the neutral plane errors by means of windings on the neutral poles is described. There are 11 figures. ✓

ASSOCIATION: Institut teoreticheskoy i eksperimental'noy fiziki
GKAE (Institute of Theoretical and Experimental
Physics GKAE)

SUBMITTED: April 11, 1962

Card 2/2

L 14438-66 EWT(m)/T IJP(e)
ACC BR: AT6002500

SOURCE CODE: UR/3138/65/000/362/0001/0012

AUTHOR: Birger, N. G.; Borisov, V. S.; Bysheva, G. K.; Gol'din, L. L.; Korotkov,
M. M.; Martusov, Ye. T.; Sidorenko, Z. S.; Tumanov, G. K.

ORG: none

19, 55
TITLE: Measurement of proton momentum as a function of acceleration time on the
synchrotron at the Institute of Theoretical and Experimental Physics

19, 55
SOURCE: USSR. Gosudarstvennyy komitet po ispol'zovaniyu atomnoy energii. Institut
teoreticheskoy i eksperimental'noy fiziki. Doklady, no. 362, 1965. Izmereniye za-
visimosti impul'sa protonov sinkhrotrona ITEF ot vremeni uskoreniya, 1-12

TOPIC TAGS: proton beam, synchrotron, particle physics

ABSTRACT: A beam of particles emitted at an angle of 0.222 rad to the direction of
incident proton was analyzed by an SP-12 magnet located 13 m from a polyethylene
target. Positively charged particles deflected by this magnet at an angle of 0.262
rad reached the detector. The detector count rate was measured as a function of
magnet current. The energy of elastically scattered protons was used as a basis for
determining momentum. The measurements were made at four different time intervals

Card 1/2

L 14438-66
ACC NR: AT6002500

from the beginning of the acceleration cycle. The following table gives the results of these measurements

Results of measurements of proton momentum P
as a function of acceleration time

t in sec	$P(1 \pm \delta P/P)^d$ in bev/c
0.404	2.20 (1 ± 0.006)
0.408	2.25 (1 ± 0.006)
0.813	4.45 (1 ± 0.006)
0.817	4.49 (1 ± 0.006)
1.176	6.35 (1 ± 0.006)
1.420	7.64 (1 ± 0.009)

where $\frac{\delta P}{P}$ is the relative error in momentum determination. The experimental errors

are analyzed and the following formula is given for proton momentum as a function of acceleration time: $P = 0.08 + 5.34 t$. Orig. art. has: 6 figures, 1 table, 1 formula.

SUB CODE: 20/ SUBM DATE: 21Jun65/ ORIG REF: 002/ OTH REF: 000

Card 2/2

SAVIN, Ye.V., Inzh.; TUMANOV, G.M., Inzh.

Automatic control system of an internal combustion engine with
controllable pitch propeller. Sudostroenie 30 no.9:33-34 S '64.
(MIRA 17:11)

S/173/64/015/001/001/001

Authors: Kara-elyan, A. A., Vanyan, A. A., and Tumanov, A. A.

Title: Modernized ALB-2M seismometers with explosions

ISSN: 0013-788X. Akademiya nauk Armyanskoy SSR. Izvestiya. Seriya tekhnicheskikh nauk, vol XVI, no 1, 1963, 21-27

TEXT: A group of scientific workers and designers from the Institut geofiziki i inzhenernoy seysmologii Akademii nauk Armyanskoy SSR (Institute of Geophysics and Engineering Seismology, AS, Armenian SSR) and the Institut fiziki Zemli Akademii nauk SSSR (Institute of Physics of the Earth, AS, USSR) modernized the design of the ALB-2M seismometer. The ALB-2M has 3 vertical spherical pendulums for recording horizontal displacements and 3 horizontal torsion pendulums for recording vertical displacements. The vertical pendulums had free oscillation periods of 0.8, 0.10, 0.15, 0.20, 0.30, 0.40, 0.60, 0.80, and 1.20 seconds. The horizontal pendulums had free oscillation periods of 0.8, 0.15, and 0.30 seconds. All pendulums were equipped with a logarithmic damping system. The logarithmic damping system was tested on the seismometer and data were also obtained on the effect of seismic waves from explosions on structures and on seismically safe distances from explosions. The explosions used as sources of seismic waves were 123-kg charges distributed in 4 holes 3.5 to 3.8

Card 1 of 2

S/173/63/016/001/001/001

Experience in using

meters deep. The safe distance was 15 m in the studied area consisting of a block basalt structure with interlayers of belozem. The results were given in a second table with explosions of 4.5 kg in 10 holes at a distance of 25 m, and in 4 holes at a distance of 25 m and 12.5 kg in 4 holes at a distance of 25 m. The results of the tests are given in the appendix.

explosions are not too dangerous to flexible structures. These structures should be

THE FREQUENCY OF THE OSCILLATING DISCHARGE WAS 6.5 KHZ PER SEC.

ASSIGNMENT: Institut geofiziki i inzhernoy seysmologii, Ar 558 Institute of
Geophysics and Engineering Seismology, 45, Ar 5

Card 2 of 2

KARAPETIAN, B.K.; MAROYAN, G.A.; TUMANOV, G.S.

Use of AIS-2M seismometers in studying explosions. Izv. AN Arm. SSR.
Ser. tekhn. nauk 16 no.1:21-27 '63. (MIRA 16:6)

1. Institut geofiziki i inzhenernoy seysmologii AN Armyanskoy SSR.
(Explosions) (Seismometry)

TUMANOV, G.V., podpolkovnik med. sluzhby

Party provisions for medical and diagnostic functions in the
hospital. Voen.-med. zhur. no. 2:15-16 F '61. (MIRA 14:2)
(HOSPITALS—ADMINISTRATION) (DIAGNOSIS)

TUMANOV, G.V., podpolkovnik meditsinskoy sluzhby

Effectiveness of lytic cocktails in the treatment of traumatic shock;
experimental investigation. Voen.-med.zhur. no.8:69-71 Ag '59.
(MIRA 12:12)

(SHOCK ther.)
(HIBERNATION ARTIFICIAL)

TUMANOV, G.V., podpolkovnik meditsinskoy sluzhby; KATERINICH, N.T.,
podpolkovnik meditsinskoy sluzhby, kand.med.nauk; BAKANIDZE, I.G.,
podpolkovnik meditsinskoy sluzhby; SOBOLEV, Ye.I., podpolkovnik
meditsinskoy sluzhby; LOMTEVA, ye.V.

Treatment of acute radiation sickness with homoplastic bone
marrow. Voen.med.zhur. no.9:21-22 S '61. (MIRA 15:10)
(RADIATION SICKNESS) (MARROW--TRANSPLANTATION)

TUMANOV, I.; SLYUSAREV, V.

Modernized vibration screen for plastering mixes. Stroitel'
no.7:19 J1 '59. (MIRA 12:10)
(Plaster)

TUMANOV, I.

Where climate is made. Nauka i pered. op. v sel'khoz. 18 no.2:50-53
P '58. (MIRA 11:3)

1. Chlen-korrespondent AN SSSR.
(Climatology) (Greenhouses)

TUMANOV, I. F.

TUMANOV, I. F. --"Nature of the Colloids of Hydrolysis Products of Lumber and Methods of their Elimination." *(Dissertations for Degrees in Science and Engineering Defended at USSR Higher Educational Institutions) Inst of Higher Education USSR, Leningrad Order of Lenin Forestry Acad named G. K. Kirov. Leningrad, 1955

SO: Knizhnaya Letopis', No. 25, 1 Jun 55

* For Degree of Doctor of Technical Sciences

CHEPELEVSKIY, Vladimir Natanovich; TUMANOV, Ivan Aleks-vevich;
SARKHOSH'YAN, Gurgan Nikitovich; RUMYANTSEV, Aleksey
Nikolayevich; KLEVENSKIY, Aleksandr Iosifovich;
BELOTSEKOVSKAYA, S.I., red.; SHUPLYAKOV, S.I., red.

[New developments in the technology and equipment used
in motor-vehicle repair] Novoe v tekhnologii i oborudo-
vani dlia remonta avtomobilei. Moskva, Transport, 1964.
127 p. (MIRA 18:1)

11 D

Use of plant-growth-stimulating substances for raising the yield of culture plants. I. I. Tumanov, S. G. Emkeev, and A. A. Lisandr. *Soviet Agron.* 4, No. 7: 25-32 (1946).—Spraying with 0.0005% solns. of indolebutyric, naphthylacetic, and indoleacetic acids or 0.001% triiodobenzene acid, especially at the flowering period, increased the yield of alfalfa and flax; wheat failed to respond. A brief review of plant hormones is given. G. M. Kosolapoff

COMMON ELEMENTS																										PROCESS AND PROPERTIES INDEX																										COMMON VARIABLE INDEX																									
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<p>Physiological action of triiodobenzoic acid on plants. I. I. Tumanov and A. A. Lizanov. <i>J. Botan. (U.S.S.R.)</i> 31: 13-21 (1946).--Triiodobenzoic acid spray in 0.025- 0.005% concn. caused marked growth reduction in <i>Perilla</i> <i>nankinensis</i>. Alfalfa was more sensitive and rapidly showed actual formative changes with loss of mech. strength in the shoots and shrinkage of the leaves. Solns. of the order of 0.001% increased the yield of alfalfa seeds. Seed treatment with solns. down to 0.0001% concn. showed a retarding effect on the growth of spring wheat and peas; flax and sunflower were not affected. G. M. Kozlovskii</p>																																																																													
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TUMANOV, IVAN. I.

Geography & Geology

Requirements of industry as to the quality of mineral raw materials. Handbook for geologists--Moskva, G os. Izd-vo geologicheskoi lit-ry Komiteta po delam geologii pri SNK SSSR, No 21, Diatomite, tripoli, mar, 1947.

Monthly List of Russian Accessions, Library of Congress, October 1952, UNCLASSIFIED.

TUMANOV, Ivan I. 1094-

The principal achievements of Soviet science in the study of frost resistance in plants. Moskva, Akademiia nauk SSSR, 1951. 53 p. (Akademiia nauk SSR. Timirazevskie chteniia, 11)

DA

1. Plants - Effect of temperature on. 2. Cold - Physiological effect.

TUMANOV, I. I., GAPEYEV, YE. Z.

Fruit Culture

Influence of fruit-bearing organs in a maternal plant. Trudy Inst. Fiziol. rast.,
7, No. 2, 1951.

9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

1. TUMANOV, I. I.
2. USSR (600)
4. Citrus Fruits
7. Physiology of winterhardiness of citrus plants. Izv.AN SSSR Ser.biol. no.5,
1952

9. Monthly List of Russian Accessions, Library of Congress, January 1953, Unclassified.

TUMANOV, I. I.

Botany - Physiology

On L. I. Sergeev's article "Michurin doctrine should be incorporated into plant physiology." Sel i sem. 19 No. 2, 1952

Monthly List of Russian Accessions, Library of Congress, June 1952. Unclassified

GENKEL', P.A.; OKNIHA, Ye.Z.; TUMANOV, I.I., otvetstvennyy redaktor;
AVDUSINA, Ye.I., redaktor; POLYAKOVA, T.V., tekhnicheskiy re-
daktor.

[Determining frost resistance in plants according to depth of
dormancy in tissues and cells; methodological instructions]
Diagnostika morozoustoichivosti rastenii po glubine pokoia ikh
tkanei i kletok (Metodicheskie ukazaniia). Moskva, Izd-vo Akad.
nauk SSSR, 1954. 34 p. (MLRA 8:2)

1. Chlen-korrespondent AN SSSR. (for Tumanov)
(Plants--Frost resistance)

TUMANOV, I.I

523

Zashchita tsitrusovykh. ot morozov. M., izd-vo Akad. nauk.
SSSR. 1954. 95 s. s ill 19 sm. (Akad. nauk SSSR Nauch. -
popul. seriya "V pomoshch' Sel' skomu khozyaystvu").
4.000 ekz. lr. 60k. ----bibliogr: s. 92-93. --[54-54412-7 p
634.3: 632.111 : 634.3+016.3]

SO: Knizhnaya Letopis, Vol. 1, 1955

Tumanov, I.I.
TUMANOV, I.I.; VINOKUR, R.L.

Effect of soil temperature on the growth and wintering of lemon trees. Fiziol.rast. 1 no.1:21-36 S-O '54. (MIRA 8:10)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akad.nauk SSSR, Moscow.

(Soil temperature) (Lemon)

1. U.K. 11/11/55, 1-1
TUMANOV, Ivan Ivanovich; SHIK, M.M., redaktor; ISLENT'YEVA, P.G., tekhnicheskii redaktor

[Losses of plants due to cold weather and measures to prevent them] Prichiny gibeli rastenii v kholodnoe vremia goda i mery ee preduprezhdenia. Moskva, Izd-vo "Znanie," 1955. 39 p. (Vsesoiuznoe obshchestvo po rasprostraneniu politicheskikh i nauchnykh znani. Ser. 3, no.56) (MLRA 8:12)

1. Chlen-korrespondent AN SSSR (for Tumanov).
(Plants, Effect of temperature on)

TUMANOV, I. I.

Vegetative and winter hardy states in plants. Fiziol.rast. 2 no.3:
283-292 My-Je '55. (MLRA 8:11)

1. Institut fiziologii rasteniy imeni K.A.Timiryazeva Akademii nauk
SSSR, Moscow.

(Growth (Plants)) (Plants--Frost resistance)

TUMANOV, I. I.; KRASAVTSEV, O. A.

Frost resistance of woody plants. Fiziol. rast. 2 no. 4: 320-333 J1-
Ag'55. (MIRA 8:12)

1. Institut fiziologii rasteniy imeni K. A. Timiryazeva Akademii nauk
SSSR, Moscow

(Plants--Frost resistance)

TUMANOV, I.I.; SMIRNOV, N.S.

Emergency winter heating of a lemon plantation with flameless
fuel and smoke of red phosphorus. trudy Inst. fiziol. rast.
9:288-323 '55.

(MIRA 8:8)

1. Institut fiziologii rasteniy im. K.A.Timiryazeva Akademii
nauk SSSR i Geofizicheskiy institut Akademii nauk SSSR.
(Frost) (Lemon)

TUMANOV I I

USSR/ Biology - Botany

Card 1/1 Pub. 115 - 2/39

Authors : Tumanov, I. I., Mem. Corresp., Acad. Sc., USSR

Title : On the physiological bases of resistance to winter conditions on the part of plants

Periodical : Izv. AN SSSR, Ser. Biol., 1939, No. 2, p. 1-10

Abstract : An account is given of the results of experiments on the resistance of plants to winter conditions. The results show that the resistance of plants to winter conditions is determined by a number of factors, including the physiological state of the plants, the duration of the growing season, and the amount of water and nutrients available to the plants.

Institution :

Submitted :

KURSAHOV, A.L., akademik, otvetstvennyy redaktor; TUMANOV, I.I., otvetstvennyy redaktor; GENKEL', P.A., professor, otvetstvennyy redaktor; BRITIKOV, Ye.A., redaktor izdatel'stva; ZELENKOVA, Ye.V., tekhnicheskiiy redaktor

[In memory of Academician N.A.Maksimov; a collection of articles]
Pamiat' akademika N.A.Maksimova; sbornik statei. Moskva, 1957.
323 p. (MIRA 10:10)

1. Chlen-korrespondent Akademii nauk SSSR (for Tumanov)
(Botany--Physiology)

TUMANOV, I.I.

Plants in winter; talk with I.I. Tumanov, corresponding member of
the Academy of Sciences of the U.S.S.R. IUn. nat. no.2:24-25 P '57.

(MLRA 10:6)

1. Chlen-korrespondent Akademii nauk SSSR.
(Plants--Frost resistance)

USSR/Plant Physiology - Heat Cycle.

I.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95659

Author : Tumanov, I.I., Trunova, T.I.

Inst : -

Title : Hardening of Tissues in Winter Plants by Means of Sugars
Absorbed from an External Solution.

Orig Pub : Fiziol. rasteniy, 1957, 4, No 5, 397-408

Abstract : 5 mm of a section of coleoptiles of grains, isolated from 3-day germinations, were threaded in glass needles, placed in moist chambers, and put into a refrigerator with the temperature somewhat over 0°, where they passed through the first phase of hardening. For the second phase, the needles with the coleoptiles were placed for 3 days on dry filter paper in a refrigeration cabinet with the temperature from -3 to -4°. Then the temperature was decreased as desired; in the following days part of the material was removed, the temperature decreased

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USSR/Plant Physiology - Heat Cycle.

I.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95659

anew etc. After thawing for 4-5 hours at 0°, the coleoptiles were placed in an incubator in a moist chamber on filter paper moistened with a 2% solution of saccharose and for 24 hours the growth of the surviving sections were determined. The first phase of hardening was more successful with the coleoptiles kept in saccharose (optimal concentration for Vyatka winter rye 12%), than in water. With the hardening of the coleoptiles in water, the content of sugars in them fell sharply, while in the saccharose solution the content increased, especially rapidly in the first days. Ketoses, in addition, was accumulated 2-3 times more than aldose. One week was sufficient to guarantee high frost resistance, during which the size of osmotic pressure in the cells of the coleoptiles of Vyatka winter rye almost doubled. The first phase of hardening proceeded successfully in isotonic solutions of saccharose, raffinose and maltose. The protective

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USSR/Plant Physiology - Heat Cycle.

I.

Abs Jour : Ref Zhur - Biol., No 21, 1958, 95659

effects of the isotonic solution of glucose was weaker. During hardening in the tissues, the content of fructose increased (more than 6-fold), as well as glucose (more than 2.5 times), saccharose (more than 3.5 times) and some fractions of oligosaccharides. Lactose did not increase frost resistance. Paper chromatography showed that all of the sugars studied penetrate into the cells; lactose is not able to be transformed into the tissues in usable forms of sugar. Hardening in a fructose solution did not guarantee a higher frost resistance in comparison to saccharose. -- Yu. B. Lopatkin

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